LABORATORY CHEMICAL FUME HOOD INSPECTION

DATE OF PREVIOUS INSPECTION | DATE

THIS INSPECTION PERFORMED BY (Name)

LOCATION OF HOOD

TYPE OF HOOD

☐ Standard ☐ Auxiliary Air supply ☐ Other (specify)

GENERAL TOXICITY RATING OF MATERIAL USED IN HOOD

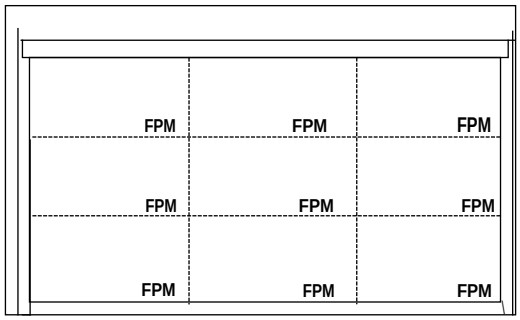
☐ Low (STEL ≥ 1, 00 0 PPM) ☐ Medium ☐ High (STEL < 1 0 PPM)

CROSS SECTIONAL AREA AT FACE

Height: _____ feet x Width: _____ feet = _____ feet^2

AIR VELOCITY READINGS

(Readings are to be taken in the center at each of the prescribed frontal grids.)

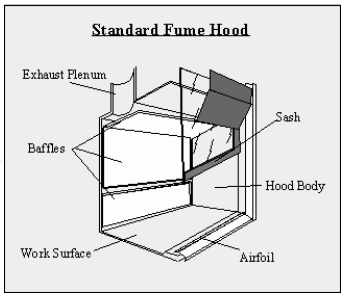


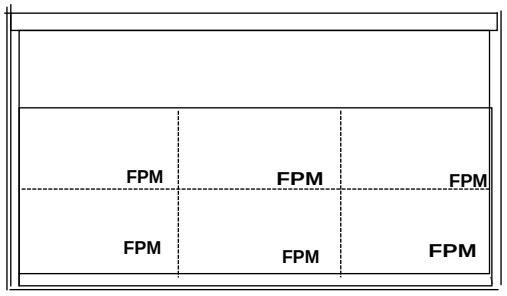
Exhaust on, sash fully raised.

(Exhaust flow value equal to zero CFPM)

$$\frac{\text{FPM} + \text{FPM}_1 + \text{FPM}_2 + \ldots\ldots \text{FPM}}{9} = \text{FPM average.}$$

Average value _____ FPM.





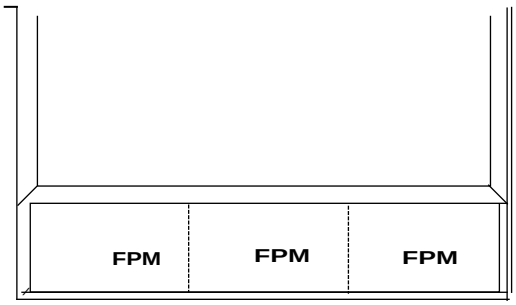
Exhaust on, sash raised 18 inches.

(Readings may not vary more than ± 20 FPM from average value.)

Average value _____ FPM.

(Value should be 80-120 FPM.)

Exhaust flow value _____ CFPM.



Exhaust on, sash 6 inches above work surface.

(Readings shall be at least 2 but not more than 3 times the face velocity when sash was fully raised)

Average value _____ FPM.

Exhaust flow value _____ CFPM

EXHAUST READING WITH SASH CLOSED

Exhaust flow value _____ CFPM.

TITANIUM TETRACHLORIDE INDICATION OF FLOW PATTERNS AT HOOD FACE.

☐ Satisfactory flow patterns evident.

☐ Unsatisfactory *(describe):*

_____

_____

_____

ONE-MINUTE SMOKE BOMB DISCHARGE

☐ Effective smoke removal with sash fully raised.

☐ Effective smoke removal with sash 6 inches above work surface.

☐ Effective smoke removal with sash closed.

☐ If unsatisfactory, describe: _____

_____

APPROVAL

SIGNATURE DATE

☐ This hood is found to be acceptable for use with materials of the general toxicity rating as specified above.

☐ This hood has been found UNACCEPTABLE.

Chemical Fume Hood Testing Procedures

Testing Procedure

1. **Position the sash fully raised.**
2. **Puff smoke around the opening of the hood by using Ventilation Smoke Tubes. No smoke should come out of the hood.**
3. **Divide the fume hood opening into nine squares.**
4. **Turn the Alnor thermoanemometer on by pressing the ON/OFF switch. The instrument is in measurement mode once the power up sequence is complete.**
5. **Measure the velocity of the air at the center of each of the nine squares. This is accomplished by placing the probe of the Alnor at the center of the square so that air flow is across the sensor. Hold the probe directly outward and hold the probe directly in line with the sash. Allow the Alnor time to stop fluctuating between readings. When a fairly constant reading is shown on the Alnor, record the reading in the applicable square on the form. Continue taking readings until all nine are done.**
6. **Position the sash so that the fume hood opening is 18 inches.**
7. **Divide the fume hood opening into six squares.**
8. **Follow step 5 for the six measurements.**
9. **Position the sash so that the fume hood opening is 6 inches.**
10. **Divide the fume hood opening into three squares.**
11. **Follow step 5 for the three measurements.**

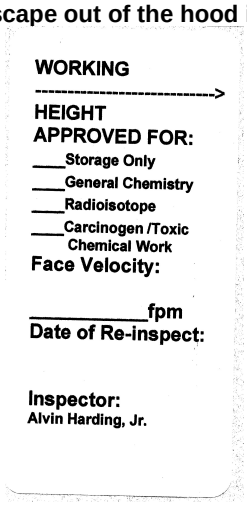
Paperwork

1. **Fill out the required information on the "Laboratory Chemical Fume Hood Inspection" (Form S&E-283).**
2. **Fill in the readings in the appropriate squares on the form and write in the average reading.**
3. **If a fume hood does not pass, tape a Warning sign onto the sash, and remove or cross out any earlier inspection stickers.**
4. **If a fume hood does pass, fill out an inspection sticker and affix it to the front of the hood. The metal frame of the hood is a good location for the sticker.**

Determining Whether to Pass a Hood

The following three conditions must be met in order for a hood to pass:

1. **The average face velocity with sash at an opening of 18 inches should be 80-120 fpm.**
2. **The average face velocity with sash at an opening of six inches can not be greater than 300 cfm.**
3. **Smoke can not escape out of the hood into the room.**



Inspection Sticker